REACTIVITY OF 2-(2′,2′-DIKYANOVINYL)-1,4-DIHYDROPYRIDINE TOWARD ALKYL ACETOACETATES.

Barbora Baumlová\(^a\), Štefan Marchalín\(^a\), Peter Baran\(^b\), Adam Daïch\(^c\)

\(^a\)Department of Organic Chemistry, Faculty of Chemical and Food Technology, Slovak University of Technology, Bratislava, Slovak Republic
\(^b\)Department of Chemistry, Juniata College, 1700 Moore Street, Huntingdon, PA 16652, USA
\(^c\)URCOM, EA 3221, UFR des Sciences & Techniques de l’Université du Havre, 25 rue Philippe Lebon, BP: 540, F-76058 Le Havre Cedex, France

Indolizine skeleton with different degree of saturation has been found in many families of alkaloids in the animal and vegetable kingdoms, with a wide spectrum of biological activity [1]. Our new access to building indolizine skeleton uses tetrasubstituted 2-formyl-1,4-dihydropyridine 1 as an attractive scaffold, which was obtained by acid hydrolysis of corresponding 2-dimethoxymethyl-1,4-dihydropyridine, prepared by modified Hantzsch synthesis [2].

![Chemical structure 1](image1)

Earlier we studied reactivity of 2-formyl-1,4-dihydropyridine 1 with malonodinitrile [3]. In this study we report reactions of 2-(2′,2′-dicyanovinyl)-1,4-dihydropyridine 2 with alkyl acetoacetates - compounds containing an active methylene group capable of oxo-enol tautomerism. Upon an amount of base new indolizine skeleton with various degree of saturation were prepared.

![Chemical structure 2](image2)